

FIG. 1

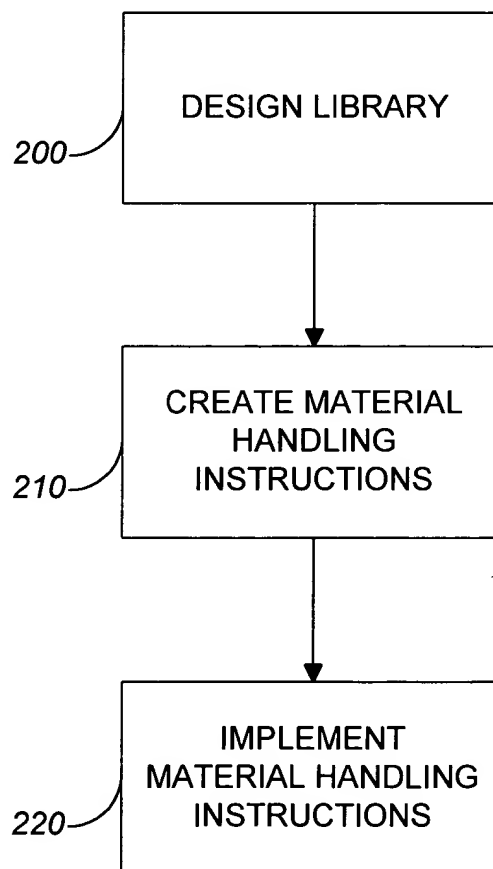


FIG. 2

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

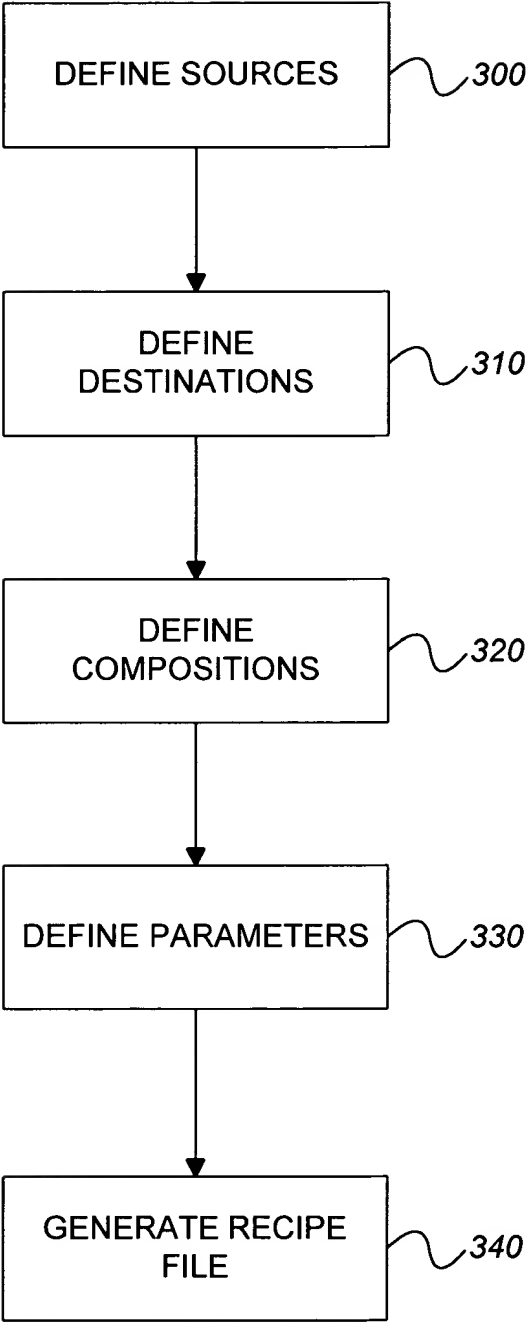


FIG. 3

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

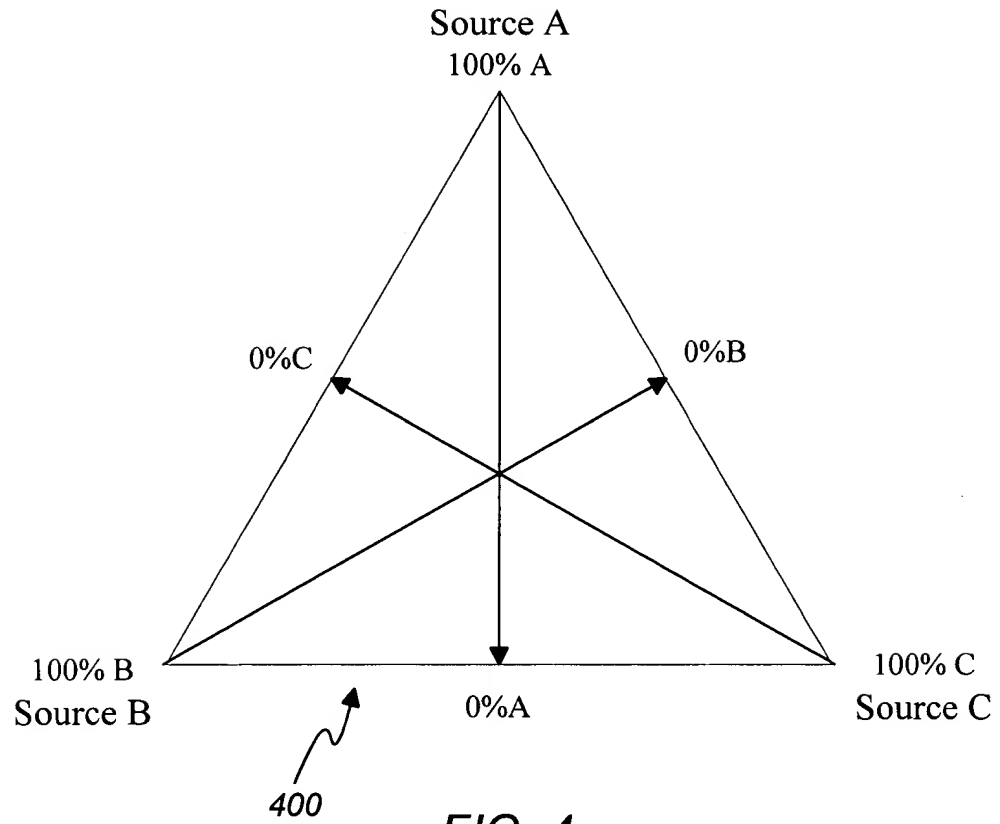


FIG. 4

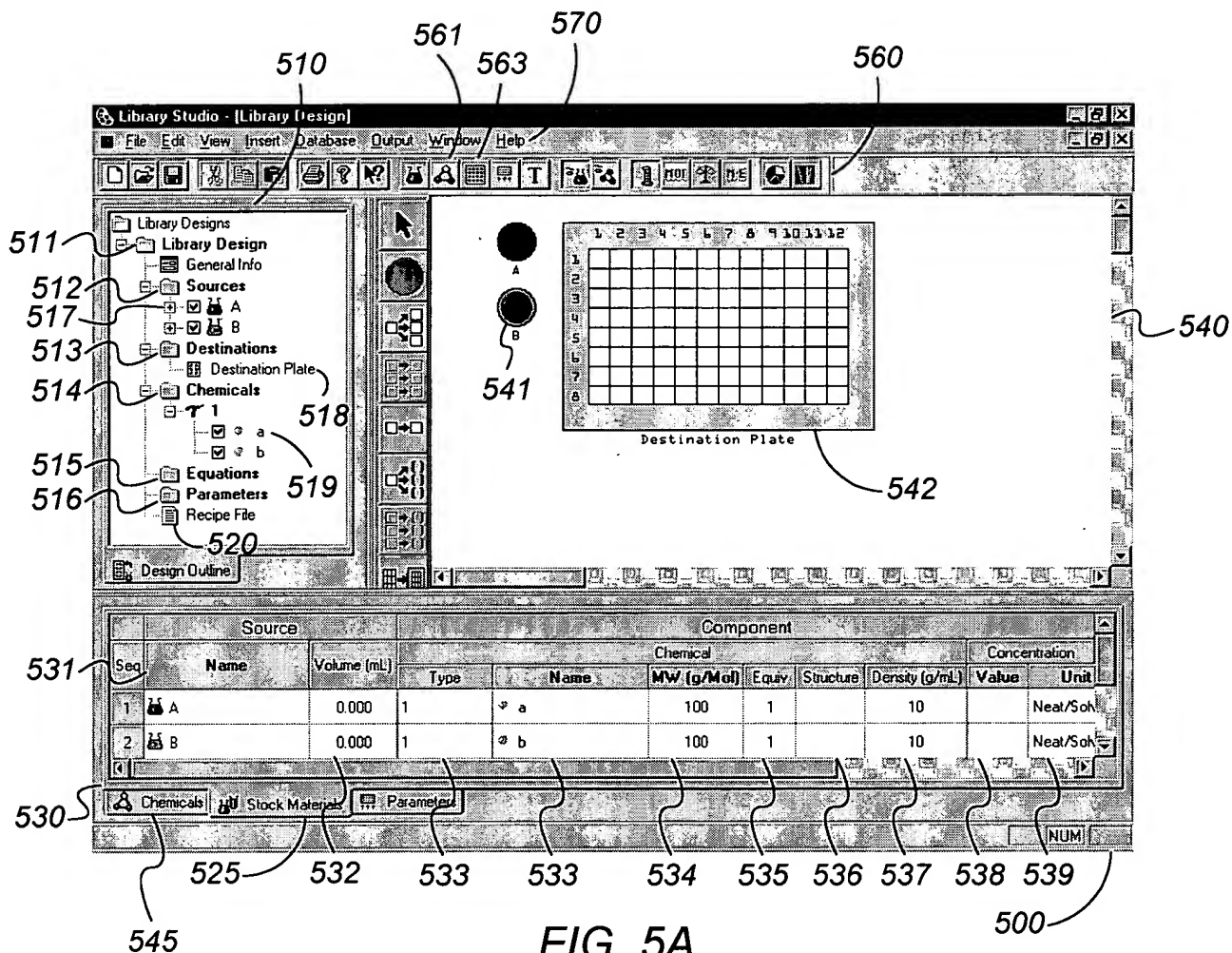


FIG. 5A

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

551 552 553 554 555 556

	Type	Chemical Name	Mol. Wt.	Equiv.	Structure	Density
1	1	a	100	1		10
2	2	b	100	1		10
3	3	c	100	1		10

545 550

Chemicals Stock Materials Parameters

FIG. 5B

580

**Destination Property**

Destination Name:

Bounding Matrix:

Rows:  Columns:

Libraries Registered:

Add Remove

Description:

OK Cancel

FIG. 5C

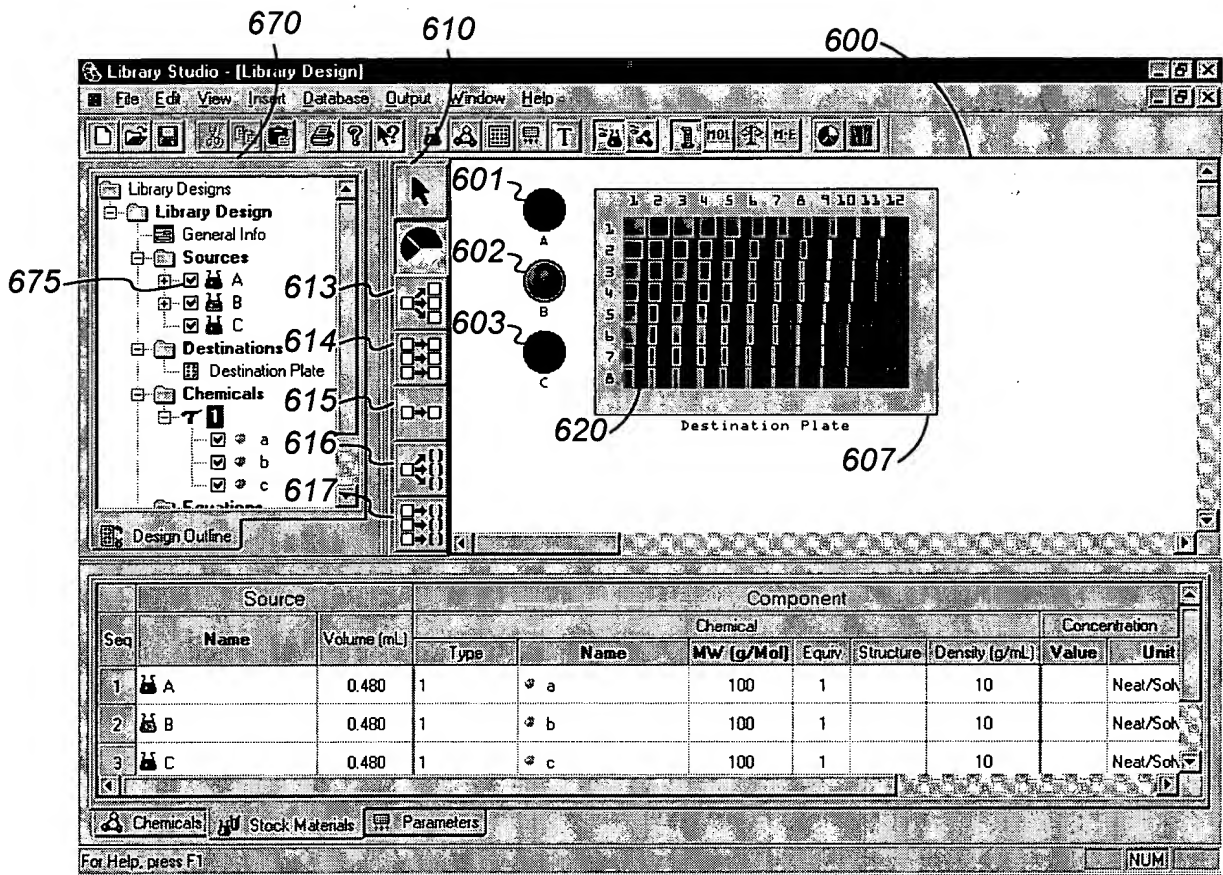


FIG. 6A



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Mapping Sequence								
Seq #	Source	Destination	Amount	To Recipe	Tag		<< Insert	
1	F (1.1),(1.1)	Plate (1.1),(7.4)	10.00 to 70.00	<input checked="" type="checkbox"/>			>> Delete	
2	E (1.1),(1.1)	Plate (1.5),(7.8)	10.00 to 70.00	<input checked="" type="checkbox"/>			Modify	
3	G (1.1),(1.1)	Plate (1.9),(7.12)	10.00 to 70.00	<input checked="" type="checkbox"/>			Replicate	
4	B (1.1),(1.1)	Plate (1.1),(2.4)	10.00 to 40.00	<input checked="" type="checkbox"/>				
5	B (1.1),(1.1)	Plate (1.5),(2.8)	10.00 to 40.00	<input checked="" type="checkbox"/>				
6	B (1.1),(1.1)	Plate (1.9),(2.12)	10.00 to 40.00	<input checked="" type="checkbox"/>				
7	C (1.1),(1.1)	Plate (5.1),(6.4)	10.00 to 40.00	<input checked="" type="checkbox"/>				
8	C (1.1),(1.1)	Plate (5.5),(6.8)	10.00 to 40.00	<input checked="" type="checkbox"/>				
9	C (1.1),(1.1)	Plate (5.9),(6.12)	10.00 to 40.00	<input checked="" type="checkbox"/>				
10	B (1.1),(1.1)	Plate (8.1),(8.2)	70.00 to 70.00	<input checked="" type="checkbox"/>				
11	C (1.1),(1.1)	Plate (8.9),(8.10)	70.00 to 70.00	<input checked="" type="checkbox"/>				
12	H (1.1),(1.1)	Plate (1.1),(8.12)	500.00 to 500.00	<input checked="" type="checkbox"/>				
13	A (1.1),(1.1)	Plate (3.1),(4.4)	10.00 to 40.00	<input checked="" type="checkbox"/>			OK	

660

FIG. 6C



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

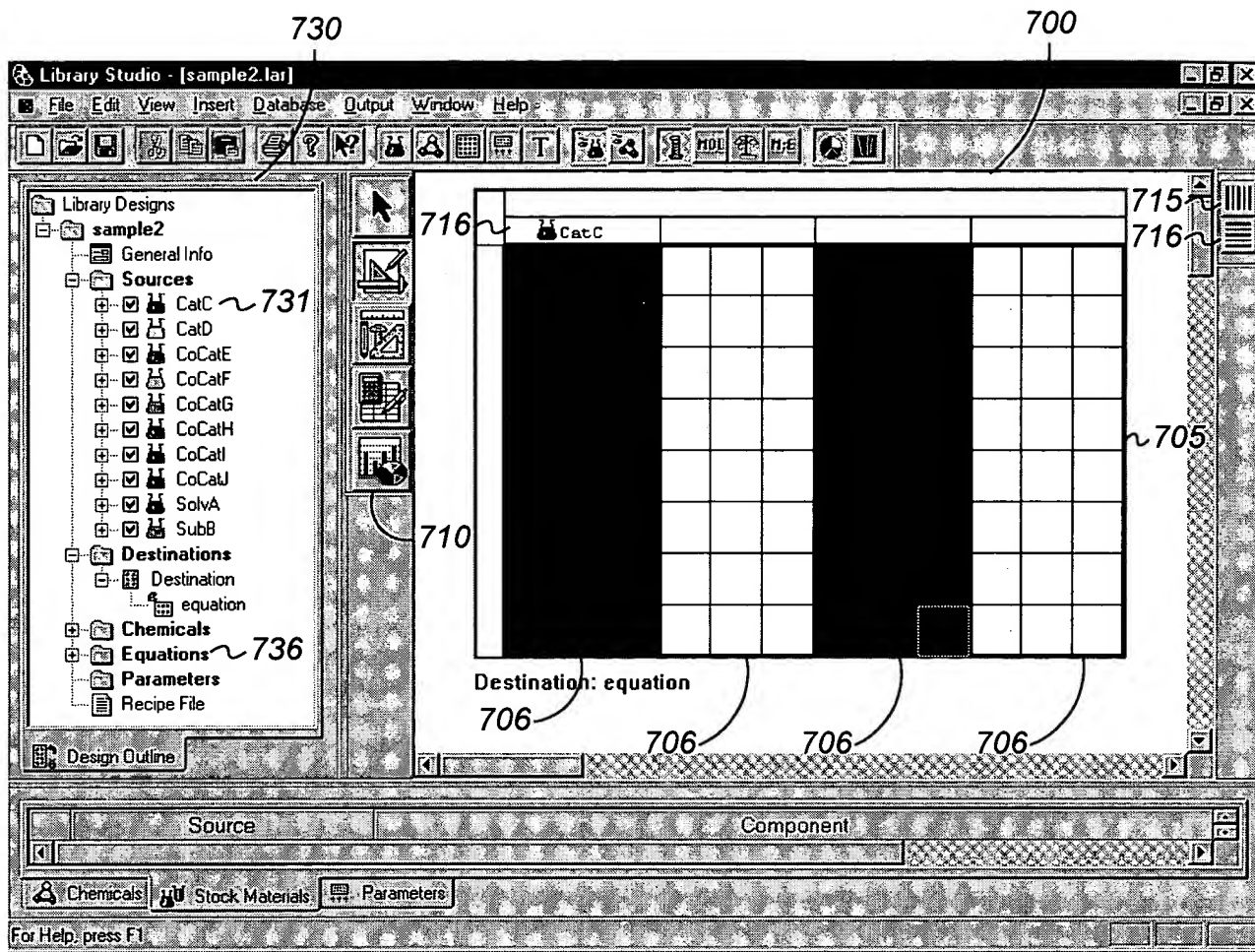


FIG. 7A

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

755

Equation 2

Equation Unit: Mole\*Equiv. ☐ Use coefficient functions

Equation

Item		Coef.		Item	
CoCatalyst	=	0.1	x	Catalyst	<input checked="" type="checkbox"/>
	+		x		<input type="checkbox"/>

Coefficient Function

Function

Direction

Start At

☐ Top Left ☐ Top Right ☒ Bottom Left ☐ Bottom Right

OK

Cancel

730

FIG. 7B

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Equation 2

Equation Unit: Mole\*Equiv.

760 Use coefficient functions

Equation

Item		Coef.				Item	
		From	To	Step Width			
CoCatalyst	=	0.1	10	1	x	Catalyst	<input checked="" type="checkbox"/>
	+				x		<input type="checkbox"/>

762

763

764

765

762

769

Function: Linear

767

Direction: Horizontal

768

Start At

☒ Top Left

☐ Top Right

☐ Bottom Left

☐ Bottom Right

770

OK

Cancel

FIG. 7C

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DATE		

805

Library Studio - [sample.lar]

File Edit View Insert Database Output Window Help

sample

- General Info
- Sources
  - CatC
  - CatD
  - CoCatE
  - CoCatF
  - CoCatG
  - CoCatH
  - CoCatI
  - CoCatJ
  - SolvA
  - SubB
- Destinations
  - Destination
  - equation
- Chemicals
- Equations
  - 1: [uL] Total Volume = 200
  - 10: [Mole\*Equiv.] CoCatalyst = 100 \* Ca
  - 2: [mg] Substrate = 0.12 \* Total Mass
  - 3: [Mole\*Equiv.] Catalyst = 0.01 \* Subst
  - 4: [Mole\*Equiv.] Catalyst = 0.0001 \* Subst
  - 5: [Mole\*Equiv.] Catalyst = 0.01 \* Subst
  - 6: [Mole\*Equiv.] Catalyst = 0.0001 \* Subst
  - 7: [Mole\*Equiv.] CoCatalyst = 0.1 \* Cata
  - 8: [Mole\*Equiv.] CoCatalyst = 1.0 \* Cata
  - 9: [Mole\*Equiv.] CoCatalyst = 10 \* Cata
- Parameters

Design Outline

2: [mg] Substrate = 0.12 \* Total Mass

SubB

SolvA

1: [uL] Total Volume = 200

CoCatE CoCatF CoCatG CoCatH CoCatI CoCatJ

802

812

813

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803

801

810

815

800

FIG. 8A

840

Equation Matrixes - Cell (1, 1)

Status: Equation solving failed

	A	B	D	E	K	SubB	SolvA	CoCatE	CatD	RH	Solution	
[Mole*Equiv.] CoC	0.000000	0.000000	-0.000001	0.000010	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	A	20.00000 (mg)
[mg] Substrate = 0.1	-0.120000	0.880000	-0.120000	-0.120000	-0.120000	0.000000	0.000000	0.000000	0.000000	0.000000	B	2.72739 (mg)
[uL] Total Volume =	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	1.000000	1.000000	1.000000	200.000000	D	0.00027 (mg)
[Mole*Equiv.] Catal	0.000000	-0.000000	0.000010	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	E	0.00003 (mg)
	-1.000000	0.000000	0.000000	0.000000	0.000000	0.100000	0.100000	0.100000	0.100000	0.000000	K	0.00055 (mg)
	0.000000	-1.000000	0.000000	0.000000	0.000000	0.001000	0.000000	0.000000	0.000000	0.000000	SubB	2727.39 (uL)
	0.000000	0.000000	-1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.001000	0.000000	SolvA	-2527.66 (uL)
	0.000000	0.000000	0.000000	-1.000000	0.000000	0.000000	0.000000	0.010000	0.000000	0.000000	CoCatE	0.00 (uL)
	0.000000	0.000000	0.000000	0.000000	-1.000000	0.000000	0.000000	0.000000	0.002000	0.000000	CatD	0.27 (uL)

OK

FIG. 8B

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
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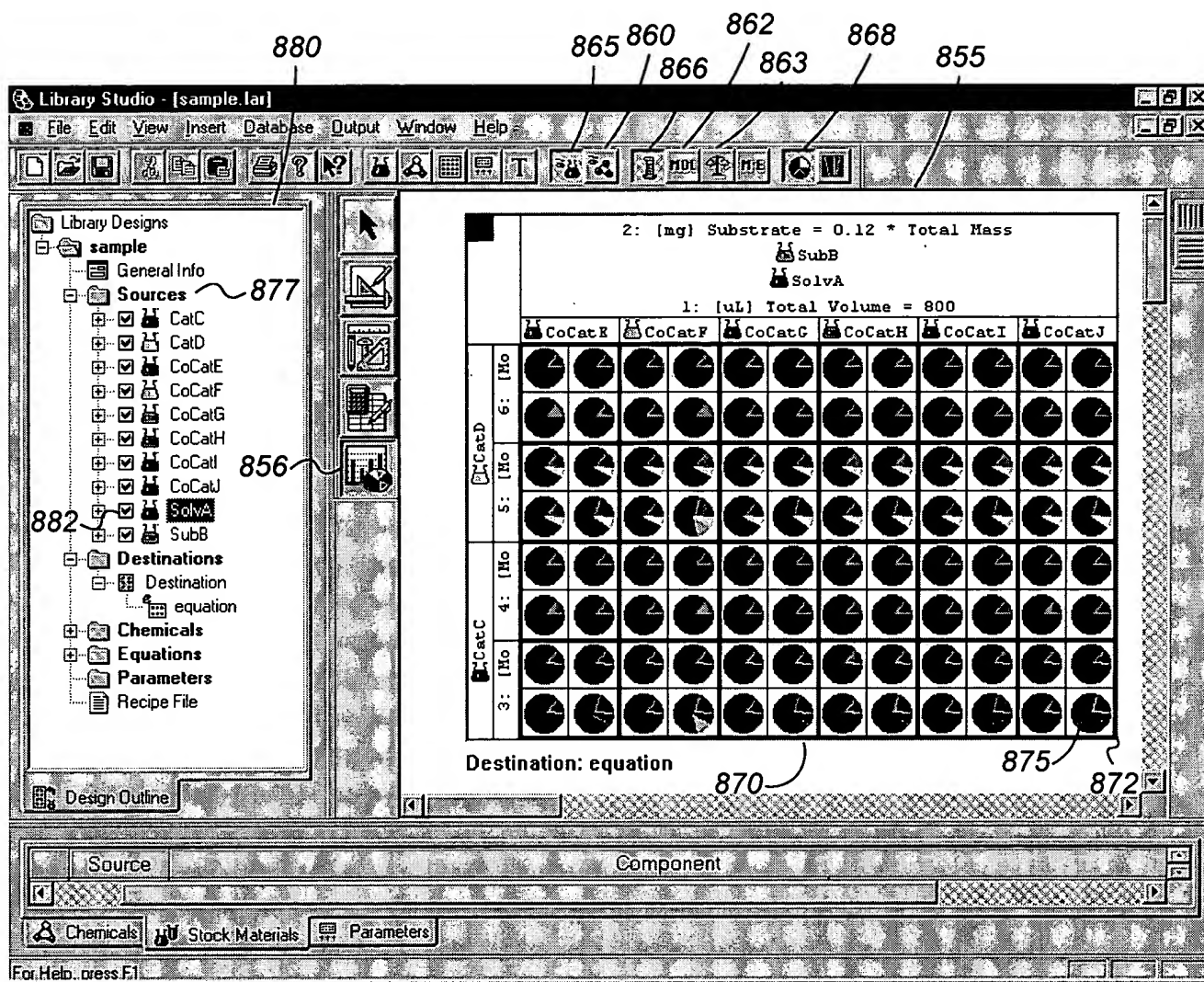


FIG. 8C



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Destination (1, 1)

Source

Name	Amount (uL)
SubB	109.1
SolvA	690.4
CoCatE	0.0
CatD	0.5

Chemicals

Name	uMole	Mole Fraction	Mass (mg)	Mass Fraction
A	3200.00000	0.98323	80.00000	0.87993
B	54.55010	0.01676	10.91002	0.12000
D	0.00546	0.00000	0.00546	0.00006
E	0.00055	0.00000	0.00027	0.00000
K	0.01091	0.00000	0.00109	0.00001

OK

885

FIG. 8D

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
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Parameter Property

Name

Annealing Temperature

Parameter Type

Temperature

Unit

C

Destinations to Apply

☒ My Destination

Parameter Value Variation

Temporal Only

Spatial

Rows

1

Columns

1

Temporal

Time Steps

5

Time Unit

Hour

Function

Step

Description

OK

Cancel

FIG. 9A

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

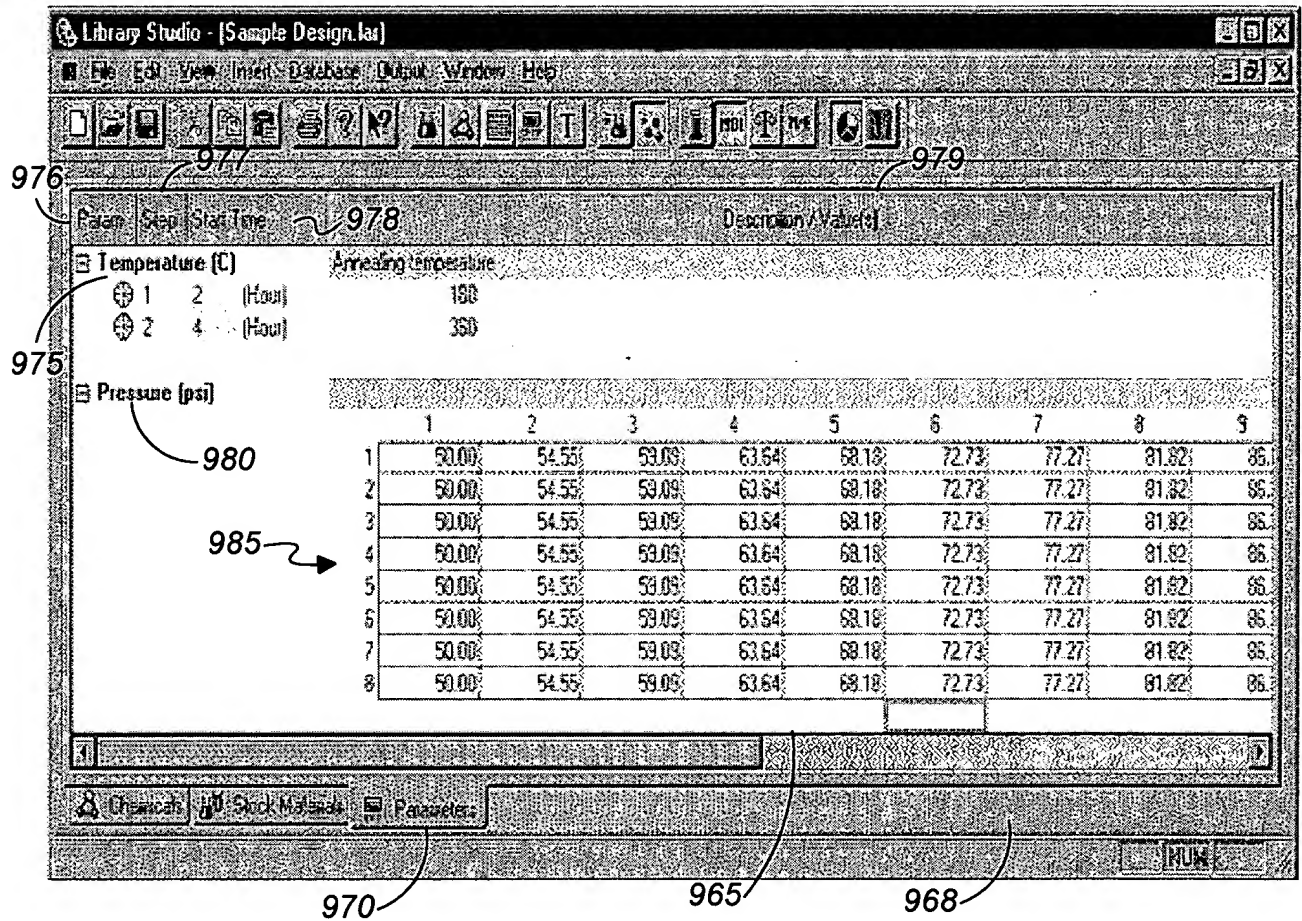


FIG. 9B



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

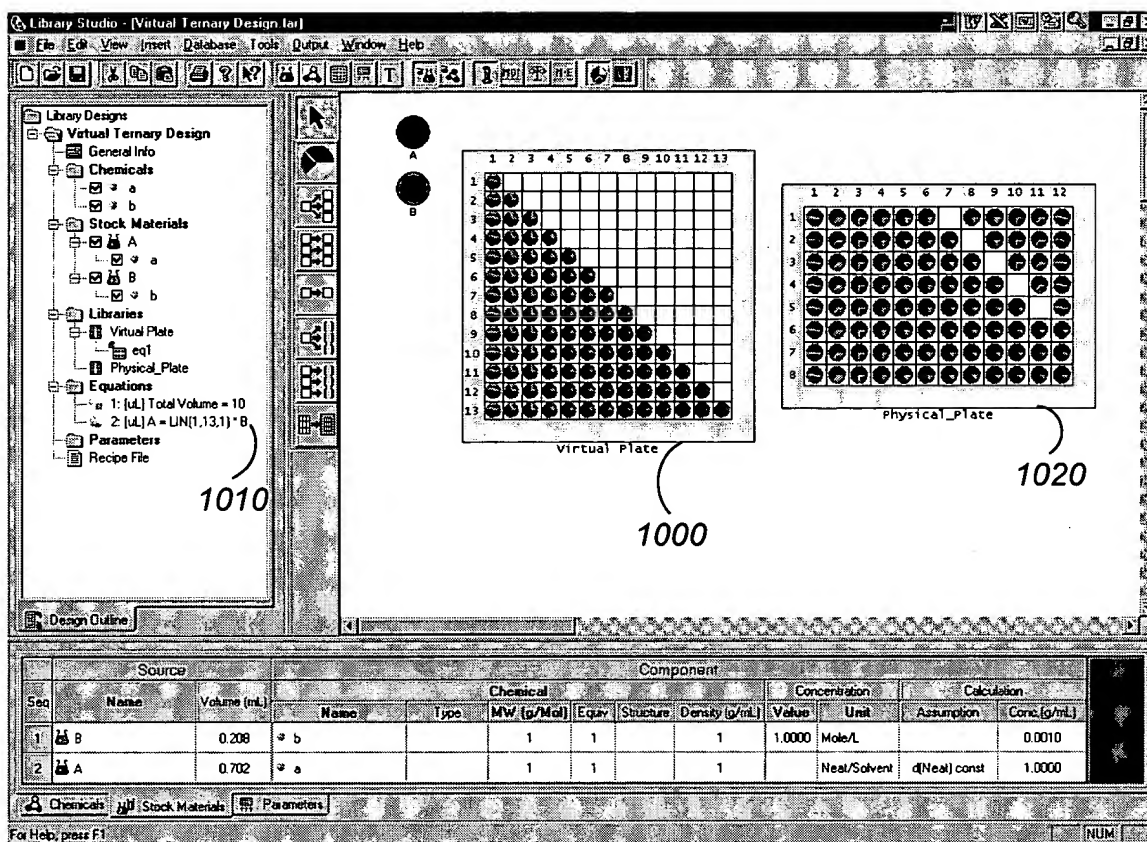


FIG. 10